TCO Development

Congratulations!

The display you have just purchased carries the TCO'03 Displays label. This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment.

Some of the features of the TCO'03 Display requirements:

Ergonomics

Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

Energy

Energy-saving mode after a certain time – beneficial both for the user and the environment

Electrical safety

Emissions

Electromagnetic fields

Noise emissions

Ecology

The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 001

Restrictions on

- chlorinated and brominated flame retardants and polymers
- heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in co-operation with scientists, experts, users as well as manufacturers all over the world. Since the early 1980s TCO has uencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, please visit
www.tcodevelopment.com

LCD Monitor

USER MANUAL
Benutzerhandbuch
Manuel Utilisateur
Manual de usuario
Manuale utente
Gebruiksaanwijzing
Használati utasítás
Podręcznik użytkownika
Användarhandbok
Brugervejledning
Brukerveiledning
Kayttöopas
Manual do utilizador
用户手册

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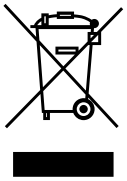
"The display unit is an electric device which may contain hazardous materials / components and that it needs to be taken care of at end of life according to a procedure."

For detailed recycling procedure, please visit
www.videoseven.com/website/displays/en/support/garantie/index.php

Information for users applicable in European Union countries



The symbol on the product or its packaging signifies that this product has to be disposed separately from ordinary household wastes at its end of life. Please kindly be aware that this is your responsibility to dispose electronic equipment at recycling centers so as to help conserve natural resources. Each country in the European Union should have its collection centers for electrical and electronic equipment recycling. For information about your recycling drop off area, please contact your local related electrical and electronic equipment waste management authority or the retailer where you bought the product.

Information for users applicable in United States of America

LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. FOR MORE INFORMATION, CONTACT THE ELECTRONIC INDUSTRIES ALLIANCE AT WWW.EIAE.ORG. FOR LAMP SPECIFIC DISPOSAL INFORMATION CHECK WWW.LAMPRECYCLE.ORG.

Installation

1.Do not cover or block the ventilation ports on the rear of the monitor.

2.Do not install the monitor close to heat sources such as radiators or air ducts, or in a location exposed to direct sunlight, excessive dust, mechanical vibration,or shock.

3.The apparatus shall only be used between 3° tilted forward and 17° tilted backward as normal operation position. If the tilt angle exceeds 17°, it shall be used for wall mounting or packaging only.

Power connection

1.Use the correct power cord for your local voltage.

2.Use an accessible outlet close to the monitor.

3.Do not allow anything to rest on the power cable.

4.Only use the power adapter attached to the monitor.

5.Disconnect the power cable from the power supply if:

5.1 You will not use the monitor for an extended period.

5.2 The cable is damaged or frayed.

5.3 The monitor has been dropped or the cabinet damaged.

5.4 A distinct change in performance indicates a need for servicing.

Maintenance

1.Clean the cabinet and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any abrasive materials or solvents such as alcohol or benzene.

2.Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as pens or screwdrivers, as the screen may scratch.

3.Do not insert objects or spill liquids into the ventilation ports on the monitor's rear, as fire, electric shock, and / or unit failure may result.

Transporting the monitor

1.When transporting the monitor for repair or shipment, fold the base of the monitor back until it becomes straight. Then wrap the monitor and its attachments with the original carton and packing materials.

Package contents

Before beginning, ensure that the carton contains the following items:

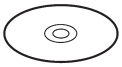
1.LCD Monitor

2.Power cord (The plug may vary according to the electrical standard for your area)

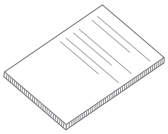
3.Video Signal Cable (Analog, D-SUB Cable)

4.Audio cable (optional)

5.CD-ROM



6.Quick Installation Guide



Installation of First Use

1.The installation of the monitor is very simple. What you need to do is to take the monitor from the packing box and remove all the packing materials. And then put the monitor on the desk carefully; fold the monitor base, so that the monitor can stand on the desk properly. Next, adjust the monitor to a desired position according to the seat and other factors.

Identifying parts and controls

1.The LED indicator and control buttons as following

2.The connection ports as following:

Functions of the buttons and indicator:

Button	Functions
MENU ⏻	1.Turn on the monitor 2.Activate the OSD control menu 3.Select the specific function 4.Turn off the monitor by pressing the button for 3 seconds
⊕	1.Activate the Volume control menu, and increase the value (optional) 2.View the next function in the main OSD menu clockwisely 3.Increase the value of specific function which has been selected
⊖	1.Activate the Volume control menu, and decrease the value (optional) 2.View the next function in the main OSD menu counter-clockwisely 3.Decrease the value of specific function which has been selected
⊕ & ⊖	1.Optimize the picture performance automatically
Indicador LED ●	1.Green color indicates that the monitor is in “active” mode (normal operation). 2.Amber color indicates that the monitor is in “sleeping” mode (power saving mode or no signal input). 3.Not lit indicates that the monitor is in “off” mode (monitor power off).

Setup

1.Connecting video

(Note: Before connecting computer, ensure the resolution and refresh rate of the computer do not exceed the following settings - resolution: 1280*1024, refresh rate: 75Hz.)

1.1 Turn off your computer

1.2 Connect the video signal cable to the VGA port of your PC, tighten the screws on the connector onto the computer

1.3 Connect the other end of video signal cable to the VGA-IN port at the back of the monitor, tighten the screws on the connector onto the monitor

2.Connecting power

2.1 Plug the female end of the power cord in to the AC-IN port at the back of the monitor

2.2 Plug the male end of the power cord into a power outlet

3.3 Connecting audio (optional)

3.1 Plug the audio cable into the AUDIO port at the back of the monitor

3.2 Plug the other end of the audio cable into your computer or other audio source

4.Turning on the computer

5.Pressing the ⏻ button at the back of the monitor to turn on the monitor

You should be able to see the picture now. If not, refer to “Troubleshooting” section.

Customizing your Monitor

The On Screen Display (OSD) system provides a full range of customizable tools to optimize your display.

Important:	While full customization is available, we strongly recommend using the Auto Adjustment function, which are preset to fully optimize your monitor's performance. Simply presses the ⊕ & ⊖ buttons simultaneously to engage the Auto Adjustment. It is also recommended that you execute the function following any change made to your display from your computer.

Working with OSD Group

1. Press Menu ⓘ button to activate the OSD menu.

2. Select the icon from the OSD menu with the ⊕ & ⊖ button.

3. Press Menu ⓘ button to confirm the selection of specific function

4. Press ⊕ or ⊖ to adjust the setting values.

5. Press Menu ⓘ button to exit from the sub-menu.

6. Press ⊕ or ⊖ to select the Exit icon , and then press the Menu ⓘ button to exit from the OSD menu.

Introduction to Hotkeys

1.Auto Adjustment

While the OSD menu is not shown, press ⊕ & ⊖ buttons simultaneously to optimize the picture performance automatically

(You may also use the OSD control to activate the Auto Adjustment function. See OSD Menu and Icon List section)

2.Volume Control (optional)

While the OSD menu is not shown, press ⊕ or ⊖ button to increase or decrease the audio volume level.

OSD Icon List

Icon	Functions	Detail
	Auto Adjustment	Optimize the picture performance automatically (you may also press⊕and⊖buttons simultaneously, while the OSD menu is not shown, to activate the function)
	Brightness	Adjust the luminance level of the screen
	Contrast	Adjust the contrast level (black to white ratio) of the screen
	Sharpness	Adjust the sharpness of the screen
	Clock	Adjust the monitor internal sampling clock rate
	Phase	Adjust the monitor internal signal phase
	Horizontal Position	Shift the position of the screen left or right
	Vertical Position	Shift the position of the screen up or down
	Color Temperature	Select the setting of screen color - Cool, Warm or User
	Cool	Select the setting of screen color to be bluish white.
	Warm	Select the setting of screen color to be reddish white
	User	Adjust the setting of screen color per user 's preference
	R	Adjust the percentage of red color.
	G	Adjust the percentage of green color.
	B	Adjust the percentage of blue color
	OSD Menu Language	Select your own preference of language of OSD menu.

	OSD Menu Position	Adjust the position of OSD menu on the screen.
	Power Saving Mode	Select between Standard and Advanced power saving modes. See addendum for details.
	Standard	Fulfill EPA Energy Star power management requirement
	Advanced	Activate monitor Life-Extension function
	Recall Factory Preset	Reset monitor parameters back to factory preset values.
	Exit	Disable the OSD menu

Troubleshooting

Symptom	Check Items
1.No picture 2.LED indicator (at the right side of the monitor) is not lit	1. Check if the monitor is turned on (press the button ⏻ again). 2. Check if the power cord is properly connected to the monitor and power outlet. 3 .Check if there is electricity coming from the power outlet (use another device to check for power).
1.No picture 2.LED indicator (at the right side of the monitor) is orange	1 Check if your computer is turned on. 2 Ensure the computer is not in power saving mode (move the mouse or press a key on the keyboard to wake up the computer). 3 Check if the video signal cable is properly connected to the monitor and computer.
1.Picture shows "No Signal Input"	1 Check if your computer is turned on. 2 Check if the video signal cable is properly connected to the monitor and computer.
1.Picture shows "Input Signal Out of Range"	1. Ensure that the resolution and/or refresh rate is set correctly. (See item 2.1 of Monitor Installation section)
1.Picture not clear	1. Press the ⊕ & ⊖ buttons simultaneously to activate the Auto Adjustment function 2. Check if the video signal cable is properly connected to the monitor and computer. 3. Adjust the screen resolution and refresh rate of your computer to SXGA (resolution: 1280*1024, refresh rate: 60Hz) for the best performance

Technical Features and Specifications

Item (V7-17)		Description
Panel	Screen Size	337.92(H) x 270.336(V) mm
	Pixel Format	0.264(H) x 0.264(V) mm
Monitor	Display Colors	16.2M colors
Input Signal	Frequency	Horizontal: 31.5KHz to 80KHz Vertical: 56Hz to 75Hz
Compatibility	PC	SXGA 1280 X 1024 @75Hz SXGA 1280 X 1024 @60Hz
Connector	Analog	D-sub 15 pin
Tilt	Tilt Angle	-5°-20°
Dimensions (W x H x D)	Net	379 (W) x 386(H) x196(D) mm
Weight	Net	3.6kg
Regulations	Safety	CE, TUV/GS, Energy Star, TCO'03,Nemko,Semko,Demko,Fimko
	EMI	CE
	VESA	DDC2B,DPMS
Power	AC	AC 100~240V , 47Hz~63Hz
	Consumption	Active: < 35W / Standby: < 1W

Item (V7-19)		Description
Panel	Display Size	376.3 (H) x 301.1(V) mm
	Pixel Pitch	0.294(H) x 0.294(V) mm
Monitor	Display Colors	16.2M colors
Input Signal	Frequency	Horizontal: 31.5KHz to 80KHz Vertical: 56Hz to 75Hz
Compatibility	PC	SXGA 1280 X 1024 @75Hz SXGA 1280 X 1024 @60Hz
Connector	Analog	D-sub 15 pin
Tilt	Tilt Angle	-3°-17°
Dimensions (W x H x D)	Net	420 (W) x 433(H) x211(D) mm
Weight	Net	4.66kg
Regulations	Safety	CE, TUV/GS, Energy Star, GOST ,TCO'03,Nemko,Semko,Demko,Fimko
	EMI	CE
	VESA	DDC2B,DPMS
Power	AC	AC 100~240V , 47Hz~63Hz
	Consumption	Active: < 40W / Standby: < 1W

Interface Frequency

1.The following frequency range is the working period. If the entered mode between below period but not match the frequency of supported timing, display optimization would not be assured. If the entered mode is out of the working period, the display will be blanking (just show "Input Signal Out Of Range") then go to power saving.

2.Basically, mode judgment is regardless the sync polarity except both or more modes that are all belong to the supported timing list and could be judged by sync polarity only.

3.At the meantime, real entered frequency of the supported timing is not requested exactly.

4.Normalization of VGA card's deviation will be acceptable.

5.Horizontal Frequency 30 KHz---80 KHz

6.Vertical Frequency 50 Hz---75 Hz

Advanced Power Saving Mode

1.Background

The traditional monitors have the function of electricity-saving dormancy. But the interval of dormancy is difficult to decide. If the interval is long, the purpose of saving electricity can not be achieved. While the interval is short, your computer and LCD monitor would be dormant often. When the LCD monitor becomes dormant, the back lights will be turned off immediately. The frequent turn-on and turn-off of lights will result in the lightness uneven and even shortening the life of the lights.

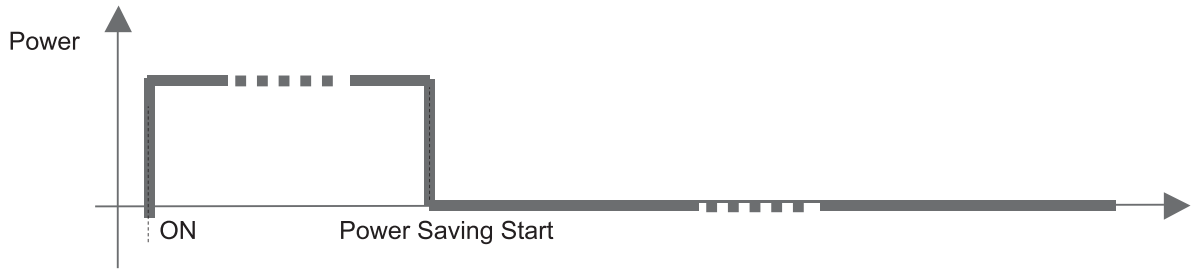
2.Our solution to the dilemma - Monitor Life-Extension function

In view of that, we have designed the function of Monitor Life-Extension. Once you select the option of "Advanced Power Saving Mode" in the OSD menu, and then you can not only save electricity, but extend the life of the lights.

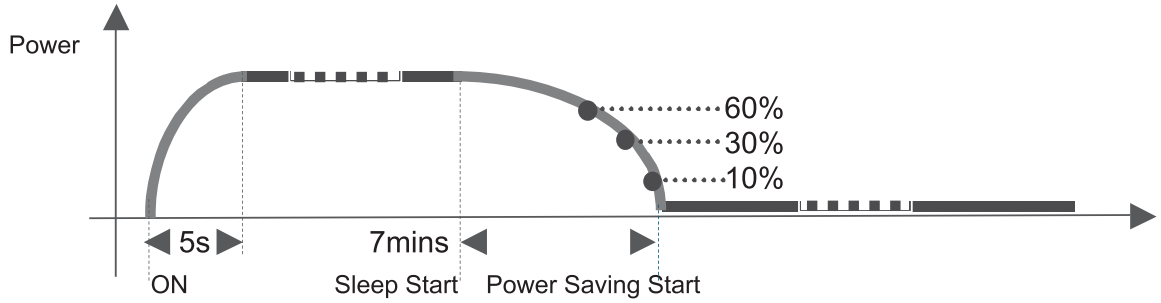
3.Working principle of the Monitor Life-Extension function

To minimize the impact of frequent turn-on and turn-off of LCD monitor, the Life-Extension function decreases the electricity supplied to the back-light of LCD monitor gradually, instead of cut it off right away when PC enters sleeping or off mode. Please see following comparison graphics for details.

* Standard Power Saving Mode (without Monitor Life-Extension function)



* Advanced Power Saving Mode (with Monitor Life-Extension function)



This "Slow-Start-n-Delay-Off" approach minimizes the transit of electricity and temperature caused by the turn-on and turn-off of LCD monitor. Therefore, the decay of backlights of TFT-LCD can be controlled in the certain level which is much less than it was.

4.The side effect of the Monitor Life-Extension function (why not preset Advanced Power Saving Mode as default?)

According to the request of EPA (US Environmental Protection Agency) to power management of monitors, the power consumption of the monitor must go down to below 3 watts within 3 seconds after the monitor steps in power saving mode. But the Life-Extension function decreases the electricity supplied to the backlights of LCD monitor gradually. Therefore, the Monitor Life-Extension function has conflict with the requirement of EPA in the first 7 minutes after entering sleeping mode. Even though,comparing the advantages of both conditions, we still recommend you strongly to set your monitor in Advanced Power Saving mode.

5.I How to engage the Monitor Life-Extension function?

You may simply use the OSD control to activate the Monitor Life-Extension function.

1. Press the Menu button to activate the OSD menu
2. Press or button to select the Power Saving Mode icon
3. Press the Menu button to confirm the selection
4. Press or button to select the "Advanced" option in the Power Saving Mode function.
5. Press the Menu button to confirm the selection
6. Press or button to select the Exit icon.
7. Press the Menu button to exit the OSD menu

FCC compliance

1.This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2.NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation, If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

3.Reorient or relocate the receiving antenna.

4.Increase the separation between the equipment and receiver.

5.Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

6.Consult the dealer or an experienced radio/TV technician for help.

WARNING:	Any unauthorized modification to this equipment could result in the revocation of the authorization to operate the equipment and void the product warranty.